HAH 5/21/21

RJA
1/04/22

Fate Report for Case # P-18-0030

Fate
Summary Statement

Fate Summary Statement: P-18-0030

FATE: [redacted]
Liquid
with MP < 25 °C (E)
S = Negl.
VP < 1.0E-6 torr at 25 °C (E)

BP > 400 °C (E)
H < 1.00E-8 (E)
POTW removal (%) = 90
via sorption
Time for complete ultimate aerobic biodeg > mo

Sorption to soils/sediments = v.strong
PBT Potential: P3B1

*CEB FATE: Migration to ground water = negl

Overall
wastewater treatment removal is 90% via sorption.
Sorption to sludge
is strong based on high molecular volume.
Air Stripping
(Volatilization to air) is negligible based on high molecular volume.

Removal by biodegradation in wastewater treatment is negligible based on high molecular volume.
The aerobic aquatic biodegradation
half-life is greater than months based on high molecular volume.

The anaerobic aquatic biodegradation half-life is greater than months based on the aerobic biodegradation half-life. The anaerobic biodegradation half-life is projected to be greater or equal to the aerobic biodegradation half-life.

Sorption to soil and sediment is very strong based on high molecular volume.
Migration to groundwater is negligible based on high molecular volume.
PMN Material:

High Persistence (P3) is based
on the anaerobic biodegradation half-life.
Low Bioaccumulation
potential (B1) is based on high molecular volume.

Bioconcentration/Bioaccumulation factor to be put into E-Fast:
N/A

CBI: [redacted]
Fate Assessor: Antwi, Frank
SMILES:

Physical Properties

Property	Measured/Calculated Value	EPI
Molecular Form:	[redacted]	
Molecular Wt.:		
% < 500:		
% < 1000:		

Property	Measured Value	Method	Estimated Value	Method	EPI
Melting Point:					
Boiling Point:			>500	High MW	
BP Pressure:			@760		@760
Vapor Pressure:			<0.000001	High MW	
Water Solubility:			<0.000001	Structure	
Log P:					
Log Kow:					
Log Koc:					
Log BCF:					
Henry's Law:					

pH:	
pH Comment:	

Fate Analysis

Hydrolysis (t1/2, da):	**Volatilization (t1/2) - River (hr):**	**Volatilization (t1/2) - Lake (da):**
Atm Ox Potential (t1/2)OH (hr):	**Atm Ox Potential (t1/2)O3 (hr):**	**Atm Ox Potential (t1/2) Total (hr):**
MITI Linear:	**MITI NonLinear:**	
Biodeg Linear:	**Biodeg NonLinear:**	
Biodeg Survey ult:	**Biodeg Survey Prim:**	
STP (% removal) Total:	**STP (% removal) Biodeg:**	
STP (% removal) Ads:	**STP (% removal) Air:**	

Rationales

Removal in Wastewater Treatment:	
Atmospheric Oxidation:	
Hydrolysis:	
Photolysis:	
Aerobic Biodegradation:	
Anaerobic Biodegradation:	
Sorption to Soil and Sediment:	
Migration to Groundwater:	
Persistence - Air:	
Persistence - Water:	
Volatilization from Water:	

Soil:	
Sediment:	
Other:	
Standard:	
Bioaccumulation:	

PBT Ratings

Persistence	Bioaccumulation	Toxicity	PBT Comments
3	1	2	

Exposure-Based Testing

Exposure-Based Testing:	

Fate Ratings
Removal in WWT/POTW (Overall):

Removal in WWT/POTW (Overall):	90

Condition	Rating Values	Rating Description				Comment
		1	2	3	4	
WWT/POTW Sorption:	3	Low	Moderate	Strong	V. Strong	
WWT/POTW Stripping:	4	Extensive	Moderate	Low	Negligible	
Biodegradation Removal:	4	Unknown	High	Moderate	Negligible	
Biodegradation Destruction:		Unknown	Complete	Partial	—	
Aerobic Biodeg Ult:	4	<= Days	Weeks	Months	> Months	
Aerobic Biodeg Prim:		<= Days	Weeks	Months	> Months	
Anaerobic Biodeg Ult:	4	<= Days	Weeks	Months	> Months	
		<= Days	Weeks	Months	> Months	

Condition	Rating Values	Rating Description				Comment
		1	2	3	4	
Anaerobic Biodeg Prim:						
Hydrolysis (t1/2 at pH 7,25C) A:		<= Minutes	Hours	Days	>= Months	
Hydrolysis (t1/2 at pH 7,25C) B:		<= Minutes	Hours	Days	>= Months	
Sorption to Soils/Sediments:	1	V. Strong	Strong	Moderate	Low	
Migration to Ground Water:	1	Negligible	Slow	Moderate	Rapid	
Photolysis A, Direct:		Negligible	Slow	Moderate	Rapid	
Photolysis B, Indirect:		Negligible	Slow	Moderate	Rapid	
Atmospheric Ox A, OH:		Negligible	Slow	Moderate	Rapid	
Atmospheric Ox B, O3:		Negligible	Slow	Moderate	Rapid	

Bio Comments:

Bio Comments:	

Fate Comments:

Fate Comments:	Overall wastewater treatment removal is 90% via sorption. Sorption to sludge is strong based on high molecular volume. Air Stripping (Volatilization to air) is negligible based on high molecular volume. Removal by biodegradation in wastewater treatment is negligible based on high molecular volume. The aerobic aquatic biodegradation half-life is greater than months based on high molecular volume. The anaerobic aquatic biodegradation half-life is greater than months based on the aerobic biodegradation half-life. The anaerobic biodegradation half-life

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to groundwater is negligible based on high molecular volume.
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Material:
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biodegradation half-life.
Low Bioaccumulation potential (B1) is
based on high molecular volume.
Bioconcentration/Bioaccumulation
factor to be put into E-Fast: N/A

Comments/Telephone Log

Artifact	Update/Upload Time